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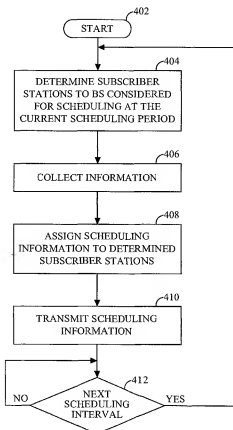
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PREDICTIVE SCHEDULING IN A BI-DIRECTIONAL COMMUNICATION SYSTEM



(57) Abstract: Method and apparatus for predictive scheduling in a bi-directional communication system are disclosed. In a communication system (100), a control unit (218) has knowledge that a subscriber station (106) will have data to be transmitted at an ascertainable time in the future. The control unit in the communication system utilizes the knowledge to schedule the data transmission without the need for the subscriber station to transmit to request schedule for the transmission.

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INTERNATIONAL SEARCH REPORT

International Application No.

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04Q7/38 H04L12/56

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H04L H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 35514 A (QUALCOMM INC) 13 August 1998 (1998-08-13) page 10, line 6-15 page 11, line 22-35 page 19, line 11-26 page 51, line 12-29 ---	1,2, 7-13, 18-22
X	WO 99 66748 A (ERICSSON TELEFON AB L M) 23 December 1999 (1999-12-23) page 17, line 13-23 ---	3-6, 14-17
X	WO 96 37081 A (ROKE MANOR RESEARCH ;DAVIS SIMON PAUL (GB)) 21 November 1996 (1996-11-21) the whole document --- -/-	3,14

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indicator, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 914 950 A (LIN YU-CHUAN ET AL) 22 June 1999 (1999-06-22) cited in the application the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/US 02/21040

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9835514	A	13-08-1998	US 6335922 B1	01-01-2002
			AU 6276298 A	26-08-1998
			BR 9806115 A	31-08-1999
			CA 2251397 A1	13-08-1998
			EP 0897644 A2	24-02-1999
			JP 2000509942 T	02-08-2000
			TW 444453 B	01-07-2001
			WO 9835514 A2	13-08-1998
			US 2002012332 A1	31-01-2002
			ZA 9800988 A	03-08-1999
WO 9966748	A	23-12-1999	US 6347091 B1	12-02-2002
			AU 1447999 A	05-01-2000
			BR 9815914 A	20-02-2001
			CA 2335767 A1	23-12-1999
			CN 1345518 T	17-04-2002
			EP 1088463 A1	04-04-2001
			JP 2002518958 T	25-06-2002
			WO 9966748 A1	23-12-1999
			TW 424377 B	01-03-2001
WO 9637081	A	21-11-1996	CN 1157083 A ,B	13-08-1997
			EP 0771510 A1	07-05-1997
			WO 9637081 A1	21-11-1996
			JP 10503357 T	24-03-1998
			US 5943316 A	24-08-1999
US 5914950	A	22-06-1999	AU 7246698 A	30-10-1998
			CN 1263675 T	16-08-2000
			EP 0974237 A2	26-01-2000
			JP 2001519123 T	16-10-2001
			TW 391099 B	21-05-2000
			WO 9845966 A2	15-10-1998
			US 5923650 A	13-07-1999
			ZA 9802973 A	13-10-1998